

# The equations of Wilson's renormalization group in dimension 4 and analytic renormalization

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## Abstract

Wilson's renormalization group equations are introduced and investigated in the framework of perturbation theory with respect to the deviation of the renormalization exponent from its bifurcation value. We consider the case when the dimension is equal to 4. An exact solution of these equations is constructed using analytic renormalization of the projection Hamiltonians. © 1985 Plenum Publishing Corporation.

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## Keywords

analytic renormalization, bifurcation,  $\epsilon$  expansion, Renormalization group